

**AFFORDABLE HOUSING ESTATE: COST REDUCTION
THROUGH THE USE OF CONTAINER ARCHITECTURE**

BY

ADEMIJU CHINEDU. A

11CA011669

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DECLARATION

I, Ademiju Chinedu Adewemisola, of the Department of Architecture, Covenant University, Ota, Ogun State, hereby declare that the information contained in the thesis work is the result of an honest academic research undertaken by me and that no part of it had been accepted for publication in any journal or magazine.

I therefore state that all information and data are duly acknowledged by proper referencing.

.....

Name

.....

Signature & Date

CERTIFICATION

It is hereby certified; that this dissertation was written by Ademiju Chinedu Adewemisola and was supervised by me and submitted to the School of Post Graduate Studies and Department of Architecture, College of Science and Technology, Covenant University, Ota, Ogun State.

1. Supervisor

.....

Dr. Dare Abel

.....

Signature & Date

2. Head of Department

.....

Dr. Alagbe

.....

Signature & Date

DEDICATION

I dedicate this project to the Lord Jesus Christ

ACKNOWLEDGEMENT

I thank the Lord Jesus Christ, for His unending love, care and support shown to me throughout the completion of this project.

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ABSTRACT

Housing, one of the basic needs of man, after food and shelter plays a very important role in the survival and thriving of mankind as it provides shelter for the home. As important as this need is, it is far from being adequately met as according the UN-HABITAT (2016) in 2010, as many as 980 million urban households lacked decent housing as will another 600 million between 2010 and 2030, creating a need for one billion new homes by 2025 costing an estimated \$650 billion per year. Nigeria as a nation has its own contribution to this need as the housing deficit in Nigeria is estimated at 14 million units and bridging this gap will cost N49 trillion. There are currently various means through which houses are being built like Frame Structure, Masonry, Large Panel and Earthen Architecture but it is with view to see how cost of construction of houses can be reduced further is container architecture being researched on. The aim of this thesis is therefore to evaluate the potential of container architecture in cost reduction of housing in Ogun state. Case Studies method of five container buildings (two international container buildings and three local container buildings) were carried out to help understand this type of architecture. It was found out that though containers have its disadvantages like controlling the temperature inside, it also has its advantages like its feasibility for offsite construction and speed of construction and special attention must be paid to insulation, type of foundation used and stacking mechanism to ensure low cost when used to build houses for people. This research was therefore employed in the design of housing units in Ado-odo/Ota local govt area, Ogun state for its middle and low income populace.